EXHIBIT G

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2 line disconnect on the flights before that after he

A. It wasn't loose enough to become

Q. Okay. How do you know?

Q. Okay. Why didn't -- why didn't the fuel

3 picked up the aircraft from Superior? Do you have an

A. Because it didn't become disconnected.

That's an assumption you're making,

A. Well, I think the evidence supports that

Q. Okay. But you're not able to verify 14 that, correct? For example, you're not able to verify

15 that what degree of looseness there was on that

16 connection from the first flight to the second flight

17 to this third flight after the -- he picked it up from

20 if you're looking for a specific torque value or a 21 specific degree of tightness or looseness on the

23 because there's no evidence of an investigation or

24 even an inspection or a check of that specific fitting 25 from the time it left Superior's facility until the

22 fitting, if that's your question, no. And it's

A. I'm not sure I understand your question,

- 1 have caused a fuel pressure drop in the fuel system.
- 2 I traced the lines from the fuel tanks that are in the
- 3 wings as much as I could visually, and I videoed --
- 4 video documented the routing of those lines to look at
- 5 not only the condition of the lines themselves, which
- 6 some of those are aluminum lines and some of them are
- 7 flexible lines.
- I also looked at the fittings, the
- 9 bulkhead fittings, and the B nuts and the fire sleeve
- 10 where there is a fire sleeve to see if there were any
- 11 indication of a breach in the fuel lines running from
- 12 the tanks up to the engine to see if there were any
- 13 additional sources of a loss of fuel pressure.
- 14 Q. Okay. The fuel line that we've been
- 15 talking about that you believe became disconnected,
- 16 why do you believe it became disconnected?
- 17 A. If I understand your question correctly,
- 18 you're asking me what the root cause of the reason the
- 19 fuel line that we're concerned about here that was
- 20 identified by the FAA that was disconnected why it
- 21 became disconnected.
- 22 Q. I didn't say root cause, but if that is
- 23 significant to you --
- 24 A. I'm just trying to understand your
- 25 question.

1

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1 time of the crash.

4 opinion?

10 correct?

12 opinion.

18 Superior, correct?

7

8

11

13

19

6 disconnected.

- 2 Q. Mr. Lykins, you don't know how loose that
- 3 connection was at any time before this accident,
- 4 correct?
- 5 A. Again, a quantitative amount of
- 6 looseness, no, I do not know.
- Q. Okay. You looked at the logbook entries
- 8 and maintenance records for this aircraft, correct?
- A. Yes, I did.
- 10 Q. Do you have an opinion as to what
 - 11 particular maintenance work might have loosened that
 - 12 connection or would have disconnected that connection?
 - A. Assuming that maintenance would have
 - 14 caused the fitting to be become loose, I can't point
 - 15 to a specific entry. Knowing that logbook entries are
 - 16 not a 100 percent documented representation of every
 - 17 jot and tittle of maintenance tasks that are performed
 - 18 on an aircraft, anytime a mechanic is in that area and
 - 19 manipulates a line or a fitting could potentially
 - 20 cause that fitting to loosen. But, again, I do not
 - 21 have a specific reference I could point to in the
 - 22 logbooks that would indicate that is when the fitting
 - 23 became loose.
 - 24 Q. Okay. Do you even have any opinion as to 25 work done as reflected in the entries that would have

- Q. I just asked why the line became
- 2 disconnected. Do you have an opinion as to why that
- 3 fuel line became disconnected?
- 4 A. I do.
- 5 O. Okay. And what is that opinion?
- 6 A. Because it was loose.
- 7 Q. How did it become loose?
- A. I don't know why it became loose or how
- 9 it became loose.
- 10 Q. Okay. You don't know why it became loose
- 11 or how it became loose; is that correct?
- A. I do not know how it became loose. That
- 13 was your question.
- 14 Q. Okay. Do you know why it became loose?
- 15 A. I don't have a specific reason why it
- 16 became loose. There's many reasons why fuel lines can
- 17 become loose over their lifetime, but I don't know
- 18 specifically why this particular fuel line became
- 19 loose.
- 20 Q. Do you know when it became loose?
- A. I know that it became loose just prior to
- 22 Mr. McGraw's crash.
- 23 Q. Okay. And how do you know that?
- A. Because the FAA stated that the fuel line
- 25 was completely disconnected at the fuel pump.

11 (Pages 38 - 41)

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- 1 Q. Aside from that, was there any work that 2 they did that directly involved that fuel line that 2 stre
- 3 you believe came off?
- 4 A. Outside of the annual -- or annual,
- 5 slash, condition inspection?
- 6 Q. That's right.
- A. I don't have any documented evidence that
- 8 they removed or reinstalled or loosened or tightened
- 9 specifically that fuel line, other than the fact that
- 10 they had -- they beared the burden before releasing
- 11 that aircraft to service based off of the annual
- 12 inspection that they should have been ensured that it
- 13 was tight --
- 14 Q. Okay. Thanks.
- 15 A. -- prior to returning it to service.
- 16 Q. Based on your report, Mr. Lykins, do you
- 17 believe that Superior or its -- the mechanics at
- 18 Superior were at fault for this fuel line
- 19 disconnecting?
- 20 A. I'm not so sure I understand your
- 21 question. Are you -- I need to know whether or not
- 22 the question is related to the mechanics who signed
- 23 the logbook or all of those that were potentially
- 24 involved in the work.
- 25 Q. I said Superior mechanics. So it's --

- 1 straightforward answer, and this is why, I have a
- 2 strong opinion that in an organization such as
- 3 Superior, especially those who have an organized
- 4 maintenance program, such as an FAA 145 repair
- 5 station, bears the ultimate responsibility for a
- 6 situation like Mr. McGraw's and including Mr. McGraw's

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- 7 where an aircraft has been brought into the facility,
- 8 maintenance inspection and repairs have been performed
- 9 at that aircraft, and then released for return to
- 10 service from that facility.
- I place the ultimate blame at the end of
- 12 the day on the systems, procedures, and practices of
- 13 the organization, and in this case, Superior that
- 14 failed Mr. McGraw, not specifically the mechanics.
- 15 Unless -- and I see no evidence of this in this case,
- 16 unless there was malicious and deliberate intent by a
- 17 mechanic or mechanics to release an aircraft for18 return to service in an unsafe condition.
- 19 O. (BY MR. LORINGER) You referenced the
- 20 procedures and practices of Superior. What are you
- 21 referring to?
- A. Companies and organizations such as
- 23 Superior Aviation who hire and employ mechanics and
- 24 hold their shingle out to the public as an aircraft
- 25 repair and maintenance facility. By virtue of the

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- 1 who else could it be, right?
- 2 MR. TECHMEIER: Well --
- 3 Q. (BY MR. LORINGER) I said the
- 4 mechanics --
- 5 MR. TECHMEIER: -- first of all, I object
- 6 to the question because it's vague and now it's
- 7 argumentative on top of that.
- 8 Q. (BY MR. LORINGER) My question,
- 9 Mr. Lykins, is -- we're talking about the mechanics at
- 10 Superior. Okay?
- A. You asked if I didn't understand a
- 12 question to ask and you'd clarify.
- 13 Q. And that's what I'm --
- 14 A. So that's what I'm asking.
- 15 Q. And that's what I'm attempting to do is
- 16 to clarify this.
- 17 A. Thank you.
- Q. My question was about the mechanics at
- 19 Superior. Okay?
- 20 A. Okay.
- Q. Do you believe they were at fault for
- 22 this fuel line disconnecting?
- MR. TECHMEIER: Object to form of the
- 24 question.
- A. The answer to this question is not a

- 1 fact that that's who they are, they have, whether
- 2 they're formalized documented policies, procedures,
- 3 and systems or informal, cultural type policies and
- 4 procedures, they have a system in which the mechanics
- 5 and the employees operate within to perform their
- 6 duties.
- 7 Q. Are you critical of any of Superior's
- 8 procedures and policies as it relates to the work they
- 9 did on Mr. McGraw's aircraft?
- 10 A. Yes. In fact, every single one of my
- 11 opinions started out with Superior Aviation failed or
- 12 had Superior Aviation conducted.
- Q. Okay. Is there a particular document
- 14 you're referring to when you say procedures and
- 15 policies of Superior that you're critical of?
- A. I reference the entire scenario, the fact
- 17 that the documents would include the logbooks stating
- 18 that the aircraft was, in fact, safe for operation and
- 19 airworthy and released to return to service to
- 20 Mr. McGraw, and, in fact, it wasn't. So, yes, there
- 21 is definitely an issue there, and I have a real
- 22 problem with their policies and procedures written and
- 23 formalized or informal and unwritten because this
- 24 actually took place.
 - Q. Okay. So the policies and procedures,

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25

Page 58 Page 60 1 correct? 1 have put a torque wrench on this fuel line; is that 2 A. Or actually checking it with a torque 2. correct? A. My opinion is the Superior mechanics 3 wrench using the torque charts. 4 should have, as stated in 43 D as well as the Lancair 4 Q. Didn't I say that? 5 checklist, verified that this line fitting was A. I thought I heard you say just with a 6 properly torqued. 6 regular wrench with the description that I just 7 7 described. There are three ways. Q. Okay. 8 A. Now, in the absence of a visual indicator 8 Q. That's what I'm trying to get to. 9 indicating that it has previously been torqued, then, 9 There's three ways, just so I make sure we're 10 yes, you would have to apply some sort of an 10 communicating. Your understanding of the requirement 11 instrument, typically a torque wrench, to verify as 11 that you describe in your report are there are three 12 required by the checklist that that fitting is 12 ways that a proper condition inspection would be 13 properly torqued. 13 performed in terms of inspecting these fuel lines. Q. Could they have performed a visual 14 And those three ways are the use of a torque wrench, 15 inspection of that connection to satisfy those 15 the use of a regular wrench in the mechanism or manner 16 requirements? 16 you described, or the use of torque striping on that 17 A. Not from the evidence that I have. 17 connection? 18 Q. What do you mean by that? 18 A. That's correct. That has been installed 19 A. Because the fittings, the incident 19 previously by someone who has verified proper torque. 20 fittings on that fuel pump had no visual markings such 20 Q. Those are the three ways? 21 21 as a torque stripe or inspection lacquer stripe to A. That's correct. 22 indicate that it was previously properly torqued and 22 Q. Okay. Can you point to any document that 23 marked to verify that it hasn't been disturbed since 23 describes what you just said, that those three 24 that proper torquing. 24 specific ways are the proper way for this to be done? 25 Q. So it's your opinion that a fuel line 25 A. Yes. FAA Advisory Circular 43.13 talks Page 59 Page 61 1 like the one they believe came off on Mr. McGraw's 1 about that. 2 aircraft, that a fuel line like that needs to either 2 Q. What page is that on? 3 have a torque mark or have a torque wrench placed on A. If you'll go to page 8 of my report, and 4 it during the condition inspection to satisfy the 4 starting with the paragraph about 2 inches from the 5 requirements you describe in your report? 5 bottom, as early as 1970, the administrator or the FAA A. Those are ways that that can be done, 6 has published various advisory circulars with specific 7 yes. 7 guidance for aircraft technicians regarding installing

8 Q. Are there any other ways?

A. Sure. 9

10 Q. What are the other ways?

11 A. The other ways, you can actually back the 12 fitting off to where it's finger tight, and then the

13 Advisory Circulars FAA provide allow you to run it

14 finger tight with clean threads, then go one half --

15 one flat turn to properly torque the fitting.

Q. Okay. So that would be with a torque

17 wrench, correct?

18 A. No, you do not need a torque wrench for

19 that procedure.

20 Q. What would you use?

21 A. Proper sized wrench for that B nut.

22 Q. Okay. So torque wrenching using a wrench

23 in the method you just described or torque striping

24 would be the ways to satisfy the requirements

25 described in your report to inspect that fuel line,

8 and inspecting aircraft fuel hoses and lines. And

9 then I come on down on the next page, page 9, Section

10 2, 43.13, speaks to fuel lines and fittings and

11 additional inspection and repair practices for

12 aircraft tubing systems may be found in Chapter 9,

13 aircraft systems and components.

The next paragraph references that

15 Chapter 9, Section 2, hydraulic systems, and it says

16 carefully inspect all lines and fittings at regular

17 intervals to ensure airworthiness. Inspect fittings

18 and connections for leakage, looseness, cracks, burrs,

19 and other damage.

20 And then it says the importance of the

21 proper torque applied to all nuts and fittings in a

22 system cannot be over-emphasized. Too much torque

23 will damage metal seals, and too little torque will

24 result in leaks and loose parts. The proper torque

25 wrenches with the appropriate range should be used in

16 (Pages 58 - 61)

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